SUPPLEMENTAL MATERIAL

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Supplemental Methods.

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Table S1	Baseline electrocardiographic changes in TTC and MI patients		
	TTC N=200	**MI N=200**	**P**
Q-wave			
Q-wave in lead I	1 (0.5)	2 (1)	1
Q-wave in lead II	4 (2)	14 (7)	0.027
Q-wave in lead III	7 (3.5)	19 (9.5)	0.024
Q-wave in lead aVR	-	-	-
Q-wave in lead aVL	2 (1)	1 (0.5)	1
Q-wave in lead aVF	6 (3)	17 (8.5)	0.019
Q-wave in lead V1	5 (2.5)	17 (8.5)	0.014
Q-wave in lead V2	11 (5.5)	20 (10)	0.034
Q-wave in lead V3	11 (5.5)	19 (9.5)	0.134
Q-wave in lead V4	7 (3.5)	11 (5.5)	0.347
Q-wave in lead V5	4 (2)	3 (1.5)	1
Q-wave in lead V6	4 (2)	2 (1)	0.685
ST elevation (STe)			
STe in lead I	14 (7)	20 (10)	0.37
STe in lead II	25 (12.5)	43 (21.5)	0.023
STe in lead III	23 (11.5)	44 (22)	0.004
STe in lead aVR	7 (3.5)	35 (17.5)	<0.001
STe in lead aVL	17 (8.5)	19 (9.5)	0.862
STe in lead aVF	21 (10.5)	43 (21.5)	0.004
STe in lead V1	25 (12.5)	41 (20.5)	0.032
STe in lead V2	85 (42.5)	64 (32)	0.038
STe in lead V3	86 (43)	50 (25)	<0.001
STe in lead V4	64 (32)	43 (21.5)	0.024
STe in lead V5	43 (21.5)	36 (18)	0.451
STe in lead V6	29 (14.5)	19 (9.5)	0.166
ST depression (STd)			
STd in lead I	5 (2.5)	63 (31.5)	<0.001
STd in lead II	13 (6.5)	47 (23.5)	<0.001
STd in lead III	16 (8)	39 (19.5)	0.001
STd in lead aVR	62 (31)	6 (3)	<0.001
STd in lead aVL	4 (2)	55 (27.5)	<0.001
STd in lead aVF	14 (7)	44 (22)	<0.001
STd in lead V1	2 (1)	15 (7.5)	0.001
STd in lead V2	4 (2)	41 (20.5)	<0.001
STd in lead V3	7 (3.5)	51 (25.5)	<0.001
STd in lead V4	20 (10)	60 (30)	<0.001
STd in lead V5	22 (11)	69 (34.5)	<0.001
STd in lead V6	21 (10.5)	67 (33.5)	<0.001
T wave inversion (Tinv)			
Tinv in lead I	56 (18)	10 (5)	<0.001

Tinv in lead II	31 (15.5)	17 (8.5)	0.045
Tinv in lead III	32 (16)	22 (11)	0.188
Tinv in lead aVR	6 (3)	2 (1)	0.284
Tinv in lead aVL	55 (27.5)	22 (11)	<0.001
Tinv in lead aVF	31 (15.5)	19 (9.5)	0.096
Tinv in lead V1	17 (8.5)	14 (7)	0.709
Tinv in lead V2	33 (16.5)	18 (9)	0.035
Tinv in lead V3	49 (24.5)	23 (11.5)	0.001
Tinv in lead V4	64 (32)	23 (11.5)	<0.001
Tinv in lead V5	70 (35)	22 (11)	<0.001
Tinv in lead V6	60 (30)	17 (8.5)	<0.001

MI myocardial infarction, STd ST-segment depression MI myocardial infarction; STe ST-elevation, TTC Takotsubo cardiomyopathy, Tinv T-wave inversion; Depicted are counts, N incidence (%);

Table S2	Baseline Characteristics; Comparison between TTC with ST-elevation and STEMI		
	STE-TTC N = 111	**STEMI N = 106**	**P**
Baseline characteristics			
Age (years) *	67 ± 11	66 ± 13	0.28
Female	98 (88)	26 (25)	<0.001
BMI (kg/m²) *	24.3 ± 4	27.5 ± 5.2	<0.001
Cardiovascular risk factors and cardiovascular history			
Hypertension	65 (60)	65 (62)	0.89
Diabetes Mellitus	9 (8)	19 (18)	0.041
Current smoker	21 (19)	42 (40)	0.001
Ever-smoker	39 (35)	62 (59)	0.001
Dyslipidemia	26 (23)	52 (50)	<0.001
Positive family history of cardiovascular disease	26 (23)	30 (29)	0.36
Known CAD	7 (6)	21 (21)	0.004
Clinical and laboratory parameters			
EF (%) *	42 ± 9	49 ± 11	<0.001
Peak Troponin level (ULN) *	23.2 ± 28.2 (N=101)	54.9 ± 80.6 (N=106)	<0.001
Peak CK level (ULN) *	3.1 ± 9.4 (N=89)	11.0 ± 12.4 (N=106)	<0.001
Peak CRP level (mg/l) *	39.4 ± 56 (N=97)	78.6 ± 102.3 (N=105)	0.001
In-Hospital complications			
Cardiogenic shock	7 (6)	15 (14)	0.07
All-cause mortality	5 (5)	8 (8)	0.4

BMI denotes body mass index, CAD coronary artery disease, EF ejection fraction, STEMI ST-elevation myocardial infarction; STE-TTC Takotsubo cardiomyopathy with ST-elevation, ULN upper limit of normal; Depicted are counts, N incidence (%); * mean±SD;

Table S3 Baseline electrocardiographic changes in STE-TTC and STEMI patients

	STE-TTC N=111	STEMI N=106	P
Q-wave			
Q-wave in lead I	1 (0.9)	2 (1.9)	0.62
Q-wave in lead II	3 (2.7)	6 (5.7)	0.32
Q-wave in lead III	6 (5.4)	9 (8.5)	0.43
Q-wave in lead aVR	-	-	-
Q-wave in lead aVL	1 (0.9)	1 (0.9)	1
Q-wave in lead aVF	5 (4.5)	8 (7.5)	0.40
Q-wave in lead V1	4 (3.6)	14 (13.2)	0.013
Q-wave in lead V2	9 (8.1)	17 (16.2)	0.09
Q-wave in lead V3	9 (8.1)	17 (16.2)	0.09
Q-wave in lead V4	7 (6.3)	11 (10.4)	0.33
Q-wave in lead V5	4 (3.6)	3 (2.8)	1
Q-wave in lead V6	4 (3.6)	2 (1.9)	0.68
ST elevation (STe)			
STe in lead I	13 (11.7)	18 (17)	0.33
STe in lead II	24 (21.6)	39 (36.8)	0.017
STe in lead III	22 (19.8)	39 (36.8)	0.007
STe in lead aVR	6 (5.4)	33 (31.1)	<0.001
STe in lead aVL	15 (13.5)	17 (16)	0.7
STe in lead aVF	21 (18.9)	39 (36.8)	0.004
STe in lead V1	25 (22.5)	38 (35.8)	0.036
STe in lead V2	78 (70.2)	51 (48.1)	0.001
STe in lead V3	83 (74.8)	50 (47.2)	<0.001
STe in lead V4	63 (56.8)	43 (40.6)	0.021
STe in lead V5	43 (38.7)	36 (34)	0.48
STe in lead V6	29 (26.1)	19 (17.9)	0.19
ST depression (STd)			
STd in lead I	5 (4.5)	47 (44.3)	<0.001
STd in lead II	11 (9.9)	39 (36.8)	<0.001
STd in lead III	14 (12.6)	32 (30.2)	0.002
STd in lead aVR	48 (43.2)	5 (4.7)	<0.001
STd in lead aVL	4 (3.6)	41 (38.7)	<0.001
STd in lead aVF	12 (10.8)	36 (34)	<0.001
STd in lead V1	2 (1.8)	12 (11.3)	0.005
STd in lead V2	3 (2.7)	30 (28.3)	<0.001
STd in lead V3	3 (2.7)	34 (32.1)	<0.001
STd in lead V4	8 (7.2)	38 (35.8)	<0.001
STd in lead V5	10 (9.0)	43 (41.0)	<0.001

STd in lead V6	10 (9.0)	42 (39.6)	<0.001
T wave inversion (Tinv)			
Tinv in lead I	25 (22.5)	4 (3.8)	<0.001
Tinv in lead II	14 (12.6)	5 (4.8)	0.054
Tinv in lead III	18 (16.2)	7 (6.6)	0.033
Tinv in lead aVR	5 (4.5)	1 (0.9)	0.21
Tinv in lead aVL	27 (24.3)	11 (10.4)	0.007
Tinv in lead aVF	14 (12.6)	6 (5.7)	0.10
Tinv in lead V1	9 (8.1)	5 (4.7)	0.41
Tinv in lead V2	12 (10.8)	7 (6.6)	0.34
Tinv in lead V3	21 (18.9)	9 (8.5)	0.031
Tinv in lead V4	31 (27.9)	9 (8.5)	<0.001
Tinv in lead V5	32 (28.8)	9 (8.5)	<0.001
Tinv in lead V6	25 (22.5)	7 (6.6)	<0.001

STd ST-segment depression STEMI ST-elevation myocardial infarction; STE-TTC Takotsubo cardiomyopathy with ST-elevation, Tinv T-wave inversion; Depicted are counts, N incidence (%);

Table S4	Baseline Characteristics; Comparison between TTC without ST-elevation and NSTEMI		
	NSTE-TTC N = 89	**NSTEMI N = 94**	**P**
Baseline characteristics			
Age (years) *	63 ± 13	64 ± 12	0.61
Female	84 (94)	27 (29)	<0.001
BMI (kg/m²) *	24.6 ± 4.8	29.2 ± 6.5	<0.001
Cardiovascular risk factors and cardiovascular history			
Hypertension	44 (49)	60 (66)	0.034
Diabetes Mellitus	9 (10)	18 (20)	0.09
Current smoker	17 (19)	44 (47)	<0.001
Ever-smoker	32 (36)	52 (55)	0.012
Dyslipidemia	26 (29)	57 (63)	<0.001
Positive family history of cardiovascular disease	24 (27)	23 (26)	0.87
Known CAD	4 (5)	10 (11)	0.16
Clinical and laboratory parameters			
EF (%) *	44 ± 11	54 ± 11	<0.001
Peak Troponin level (ULN) *	18.4 ± 27.1 (N=86)	15.7 ± 21.9 (N=94)	0.46
Peak CK level (ULN) *	1.8 ± 3.6 (N=75)	3.5 ± 4.0 (N=94)	0.007
Peak CRP level (mg/l) *	29.6 ± 52.2 (N=76)	54.0 ± 117.6 (N=87)	0.10
In-Hospital complications			
Cardiogenic shock	9 (10)	4 (4)	0.16
All-cause mortality	3 (3)	2 (2)	0.68

BMI denotes body mass index, CAD coronary artery disease, EF ejection fraction, NSTEMI Non ST-elevation myocardial infarction; NSTE-TTC Takotsubo cardiomyopathy without ST-elevation, ULN upper limit of normal; Depicted are counts, N incidence (%); * mean±SD;

Table S5 Baseline electrocardiographic changes in TTC without ST-elevation and NSTEMI patients

	NSTE-TTC N=89	NSTEMI N=94	P
ST depression (STd)			
STd in lead I	0	16 (17)	<0.001
STd in lead II	2 (2.2)	8 (8.5)	0.10
STd in lead III	2 (2.2)	7 (7.4)	0.17
STd in lead aVR	14 (15.7)	1 (1.1)	<0.001
STd in lead aVL	0	14 (14.9)	<0.001
STd in lead aVF	2 (2.2)	8 (8.5)	0.10
STd in lead V1	0	3 (3.2)	0.25
STd in lead V2	1 (1.1)	11 (11.2)	0.005
STd in lead V3	4 (4.5)	17 (18.1)	0.005
STd in lead V4	12 (13.5)	22 (23.4)	0.09
STd in lead V5	12 (13.5)	26 (27.7)	0.028
STd in lead V6	11 (12.4)	25 (26.6)	0.017
T wave inversion (Tinv)			
Tinv in lead I	31 (34.8)	6 (6.5)	<0.001
Tinv in lead II	17 (19.1)	12 (12.8)	0.31
Tinv in lead III	14 (15.7)	15 (16)	1
Tinv in lead aVR	1 (1.1)	1 (1.1)	1
Tinv in lead aVL	28 (31.5)	11 (11.7)	0.001
Tinv in lead aVF	17 (19.1)	13 (13.8)	0.43
Tinv in lead V1	8 (9)	9 (9.6)	1
Tinv in lead V2	21 (23.6)	11 (11.7)	0.050
Tinv in lead V3	28 (31.5)	14 (14.9)	0.009
Tinv in lead V4	33 (37.1)	14 (13.8)	0.001
Tinv in lead V5	38 (42.7)	13 (13.8)	<0.001
Tinv in lead V6	35 (39.3)	10 (10.6)	<0.001

NSTEMI Non ST-elevation myocardial infarction; NSTE-TTC Takotsubo cardiomyopathy without ST-elevation, STd ST-segment depression; Depicted are counts, Tinv T-wave inversion; N incidence (%);

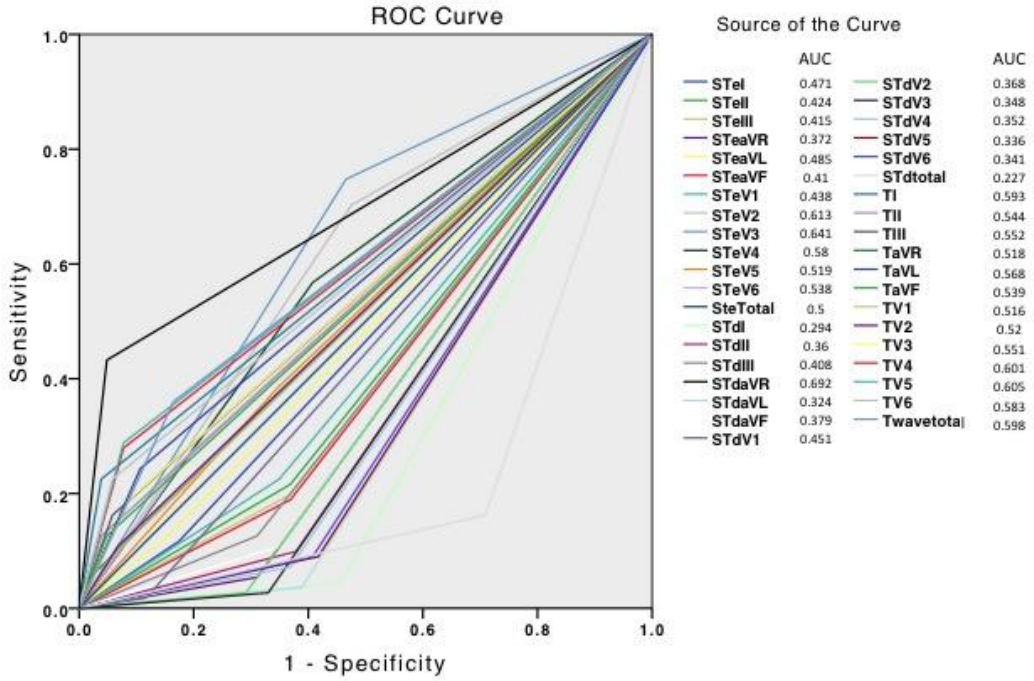

Figure S1. Receiver operating characteristic (ROC) curves showing the diagnostic accuracy of different ECG parameters to identify TTC in the setting of an ST-elevation ECG

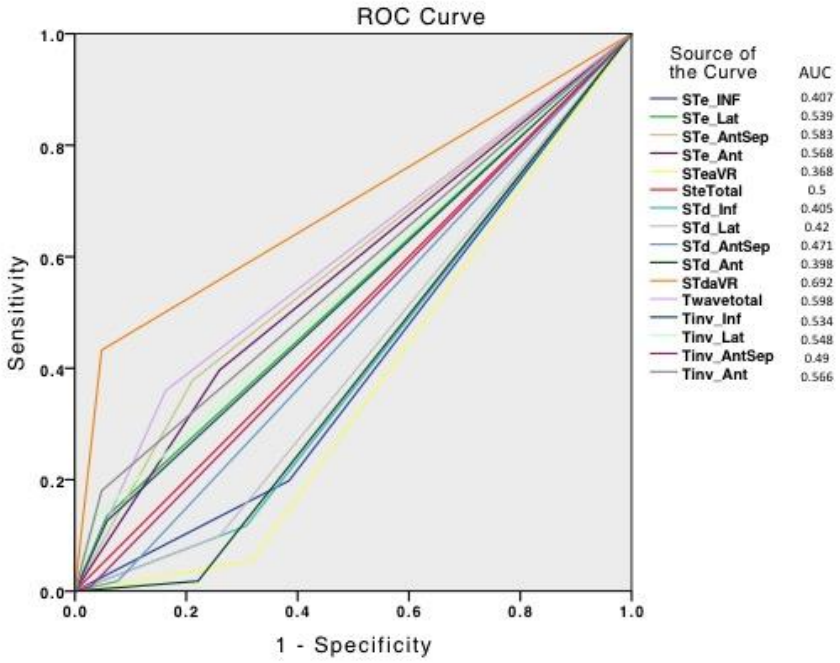

Figure S2. Receiver operating characteristic (ROC) curves showing the diagnostic accuracy of different ECG localization parameters to identify TTC in the setting of an ST-elevation ECG

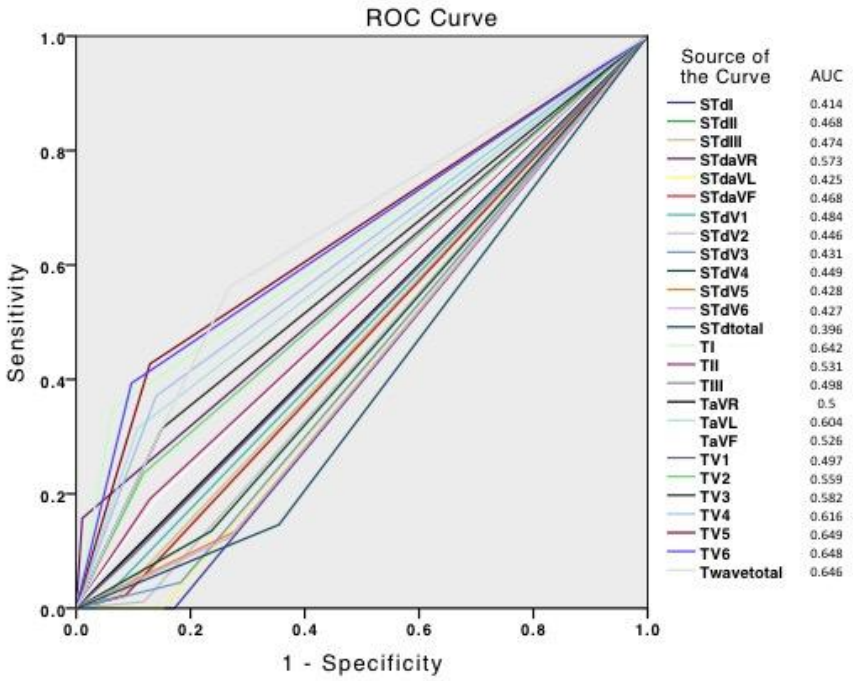

Figure S3. Receiver operating characteristic (ROC) curves showing the diagnostic accuracy of different ECG parameters to identify TTC in the setting of a non ST-elevation ECG.

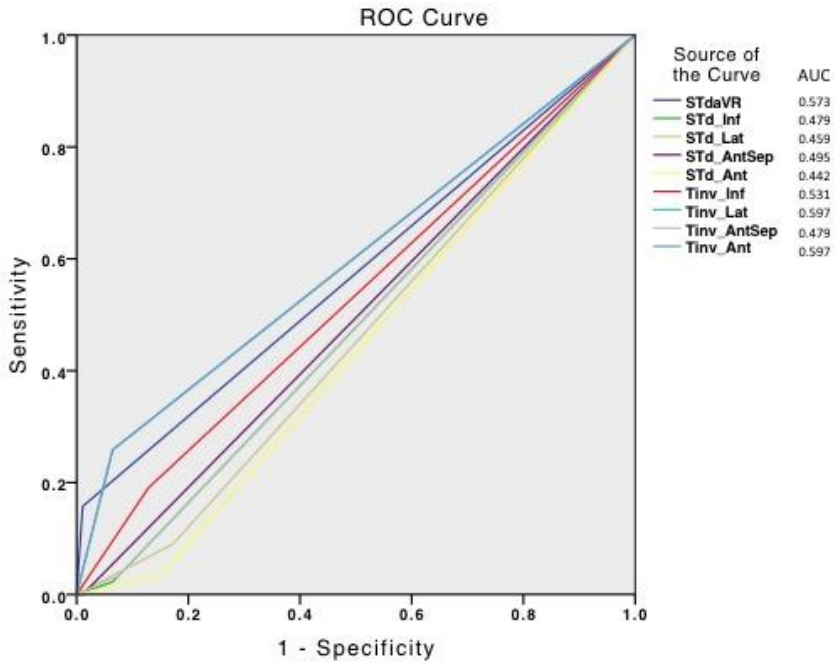

Figure S4. Receiver operating characteristic (ROC) curves showing the diagnostic accuracy of different ECG localization parameters to identify TTC in the setting of a non ST-elevation ECG.